

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virignia 22313-1450 www.uspto.gov

APPLICATION NO.	F	ILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/778,896	02/08/2001		Kimiaki Ando	P20559	P20559 4680	
7055	7590	07/11/2005		EXAM	EXAMINER	
		ERNSTEIN, P.L.C	WANG,	WANG, TED M		
RESTON, V		RKE PLACE I		ART UNIT	PAPER NUMBER	
ŕ				2634		

DATE MAILED: 07/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

S	M

	Application No.	Applicant(s)					
Office Action Summan	09/778,896	ANDO ET AL.					
Office Action Summary	Examiner	Art Unit					
	Ted M. Wang	2634					
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply							
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).							
Status							
1) Responsive to communication(s) filed on 02/18	Responsive to communication(s) filed on <u>02/18/2005</u> .						
2a)⊠ This action is <b>FINAL</b> . 2b)☐ This	This action is FINAL. 2b) This action is non-final.						
3) Since this application is in condition for alloward	☐ Since this application is in condition for allowance except for formal matters, prosecution as to the ments is						
closed in accordance with the practice under E	Ex parte Quayle, 1935 C.D. 11, 45	3 O.G. 213.					
Disposition of Claims							
4)⊠ Claim(s) <u>3-5,11 and 12</u> is/are pending in the a	oplication.						
4a) Of the above claim(s) is/are withdraw	4a) Of the above claim(s) is/are withdrawn from consideration.						
5)⊠ Claim(s) <u>12</u> is/are allowed.	5)⊠ Claim(s) <u>12</u> is/are allowed.						
6)⊠ Claim(s) <u>3 and 11</u> is/are rejected.							
7)⊠ Claim(s) <u>4 and 5</u> is/are objected to.							
8) Claim(s) are subject to restriction and/o	r election requirement.						
Application Papers							
9)☐ The specification is objected to by the Examine	<b>r.</b> .						
10) $igotimes$ The drawing(s) filed on <u>02/08/2001</u> is/are: a) $igotimes$	] accepted or b)□ objected to by	the Examiner.					
Applicant may not request that any objection to the	drawing(s) be held in abeyance. See	37 CFR 1.85(a).					
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).							
11)☐ The oath or declaration is objected to by the Ex	aminer. Note the attached Office	Action or form PTO-152.					
Priority under 35 U.S.C. § 119							
12)⊠ Acknowledgment is made of a claim for foreign pnority under 35 U.S.C. § 119(a)-(d) or (f).  a)⊠ All b)□ Some * c)□ None of:							
1. Certified copies of the priority documents have been received.							
2. Certified copies of the priority documents have been received in Application No							
3. Copies of the certified copies of the priority documents have been received in this National Stage							
application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.							
* See the attached detailed Office action for a list of the certified copies not received.							
Attachment(s)							
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 4) Interview Summary (PTO-413) Paper No(s)/Mail Date.							
<ul> <li>2) Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)</li> <li>Paper No(s)/Mail Date</li> </ul>		atent Application (PTO-152)					

Art Unit: 2634

#### **DETAILED ACTION**

# Response to Arguments

1. Applicant's arguments, filed on 2/18/2005, with respect to claims 3 and 11, have been fully considered but they are not persuasive. The Examiner has thoroughly reviewed Applicants' arguments but firmly believes that the cited reference to reasonably and properly meet the claimed limitations.

### Independent Claims 3, and 11

(1) Applicants' argument – "A review of SASAKI discloses that a timing signal is despread at a first timing, while a second despread pilot signal is despread at a second timing earlier than the first timing, and a third despread pilot signal is despread at a third timing later than the first timing. Such despreading occurs at regular timings. That is, they are not random." as recited.

Examiner's response — In response to applicant's argument as described in the above paragraph that the cited patent SASAKI (US 6,490,265) teaches that Strength determination means 11 determines the strength of the received pilot signal whose despread timing is made earlier (or later) by a given period of time, from the pilot signal whose despread timing is made earlier (or later) by a given period of time, both of which are despread by the despread means 10. Strength difference detection means 12 detects a difference in strength between the strength of the received pilot signal having despread timings made earlier by a given period of time which is determined by the strength determination means 11 and the strength of the received pilot signal having despread timing made later

Application/Control Number: 09/778,896

Art Unit: 2634

by a given period of time which is determined by the strength determination means 11. Both of Strength determination means 11 and Strength difference detection means 12 operate in a regular time.

However, the strength determination means 15 determines the strength of the received pilot signal. The receiving strength is taken as the receiving environment for radio communication. The integration control means 16 decides an integral interval suitable for the receiving environment. On the basis of the information regarding the integration interval, the ON/OFF switch 16a transmits to the integration means 13 the information regarding the activation or deactivation of the integration means 13. The integration means 13 performs integrating operations only during the period of time and remains inactive during the other period of time. The phase tracking control means 14 generates a phase tracking control instruction through use of the integration results produced by the integration means 13. By means of the thus-produced control instruction, the despread means 10 changes the despread phase, thus despreading the pilot signal at a more desirable timing, which is not a regular time but determined by the integration means 13. Thus, for the explanation addressed in the above paragraph, the rejection under 35 U.S.C. 102(e) with SASAKI's reference is adequate.

2. Applicant's arguments, filed on 2/18/2005, with respect to claim 4, 5, and 12 have been fully considered and are persuasive. The rejection of 35 USC § 103(a) has been withdrawn.

Art Unit: 2634

# Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- 3. Claims 3 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Sasaki (US 6,490,265).
  - In regard claim 3, Sasaki discloses a pilot signal reception method comprising:
     receiving pilot signals of a pilot channel (Fig.1 element 1 and column 6 lines 8-18);

despreading the received pilot signals (Fig.1 element 10 and column 6 lines 8-18);

measuring a variation in the reception intensity of a demodulated signal obtained by said despreading (Fig.1 element 15 and column 6 lines 19-64); and adaptively changing despreading timings of said pilot signals based on the measured variation in the reception intensity, in accordance with random reception timings (column 6 lines 8-64).

Here, Strength determination means 11 determines the strength of the received pilot signal whose despread timing is made earlier (or later) by a given period of time, from the pilot signal whose despread timing is made earlier (or later) by a

Art Unit: 2634

given period of time, both of which are despread by the despread means 10. Strength difference detection means 12 detects a difference in strength between the strength of the received pilot signal having despread timings made earlier by a given period of time which is determined by the strength determination means 11 and the strength of the received pilot signal having despread timing made later by a given period of time which is determined by the strength determination means 11. Both of Strength determination means 11 and Strength difference detection means 12 operate in a regular time.

However, the strength determination means 15 determines the strength of the received pilot signal. The receiving strength is taken as the receiving environment for radio communication. The integration control means 16 decides an integral interval suitable for the receiving environment. On the basis of the information regarding the integration interval, the ON/OFF switch 16a transmits to the integration means 13 the information regarding the activation or deactivation of the integration means 13. The integration means 13 performs integrating operations only during the period of time and remains inactive during the other period of time. The phase tracking control means 14 generates a phase tracking control instruction through use of the integration results produced by the integration means 13. By means of the thus-produced control instruction, the despread means 10 changes the despread phase, thus despreading the pilot signal at a more desirable timing, which is not a regular time but determined by the integration means 13.

Application/Control Number: 09/778,896 Page 6

Art Unit: 2634

In regard claim 11, which is a receiver claim related to claim 3, all limitation is contained in claim 3. The explanation of all the limitation is already addressed in the above paragraph.

# Allowable Subject Matter

- 4. Claim 12 is allowed.
- 5. Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### Conclusion

- 6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
- A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Application/Control Number: 09/778,896 Page 7

Art Unit: 2634

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted M. Wang whose telephone number is 571-272-3053. The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ted M Wang Examiner Art Unit 2634

Ted M. Wang

SHUWANG LIU PRIMARY EXAMINER

Sher way ti